

exception) appears in this state. Heat, by sublimation, sulphuretted hydrogen, by decomposition of metallic salts, may give us the sulphurets; but, in the latter case, from what prior condition is the sulphuretted hydrogen derived? Mr. Fox proposes the *decomposition of other sulphurets*, by electrical action. Thus we make no advance, and again turn to the simple action of heat, which, in like manner, stops at the *origin* of these sulphurets, and only accounts for their *transfer* from the deeper parts of the earth. This, perhaps, measures our possible knowledge as to the *origin* of the metallic ores. They have been *transferred* from the interior of the earth toward its surface, principally along the fissures opened by violent movements.

But this conclusion does not necessarily apply to the sparry contents of the veins. Aqueous solution of most of these is possible, but of some it gives no sufficient account. Some, as salts of lime, *abounding in a limestone* country, may reasonably be attributed to the action of water passing through the rocks; others, as quartz, may be thought to require much heat for their solution; the clays and rolled fragments mark mechanical action of water; and thus, finally, it appears that the present aspect of mineral veins is the result of many secondary chemical, electrical, and mechanical actions, the general antecedent to which is the influence of a high temperature below the surface of the earth.